

DRAFT

Suffocation

6/26/06

Definition: Includes inhalation and ingestion of food or other objects, accidental mechanical suffocation, hanging, and strangulation. Suffocation hospitalizations for 1989-2004 and deaths for 1990-1998 include all records with an ICD9 code of E911-E913, E953, E963, and E983. For deaths between 1999-2004, the applicable ICD10 codes are W75-84, X70, X91, and Y20.

Washington State Goal Statement:

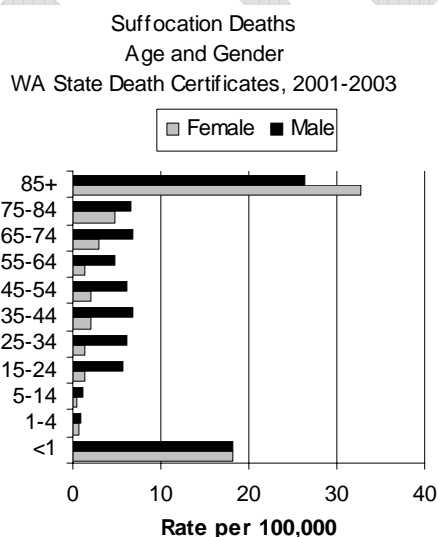
- Reduce deaths caused by suffocation by 5% from 4.7 per 100,000 (287 deaths in 2004) to no more than 4.5 per 100,000 by 2010.

National Healthy People 2010 Objectives:

- Reduce deaths caused by suffocation from 4.1 deaths in 1998 to 3.0 deaths per 100,000.

Statement of the Problem:

In 2004, 287 Washington State residents died from suffocation. In Washington State and nationally, suffocation is the leading cause of injury death for children under the age of 1 and seniors ages 75 and older have a high risk of death from suffocation.



The Washington State child death review teams found in their 1999-2001 review that infant suffocation deaths most commonly occurred while sleeping. Infants suffocated by either being wedged between the bed and a wall or pillow, or parental overlay. A large majority of the infants who died of suffocation while sleeping were co-sleeping with a parent or sibling at the time of their death. Again, the majority of co-sleeping infants had at least one of the following risks: co-sleeping on a couch, and/or alcohol and/or other drug use by the parent. In approximately one-third of the suffocation deaths, impairment by or use of alcohol and/or other drugs was involved.ⁱ

In the United States, in 2003, there were 5,580 deaths due to mechanical suffocation and asphyxiation by foreign bodies. Among children less than 1 year of age, they account for about 66 percent of unintentional injury deaths. There were 58 childhood deaths from choking on food, and 50 of those happened among children less than 2 years old. Fatal choking in young children typically involves not only round food products such as candies, nuts, grapes, and hot dogs, but also non-food products such as undersized pacifiers, small toys, and latex balloons. Additionally, children are at risk of asphyxiation from such elements as plastic bags, old refrigerators, and grain silos.

In 2003, there were more than 3,000 deaths to people aged 65 or older attributed to choking on food or nonfood material. Seniors are also at high risk for asphyxiation through food and non-food items, usually as a result of under-chewed food, use of sedative drugs, or diseases affecting coordination or mental function.ⁱⁱ About $\frac{3}{4}$ of suffocation deaths among Washingtonians between 15 and 64 years of age are suicides. In those over the age of 65, suicides represent about 22% of the suffocation deaths.ⁱⁱⁱ

Recommended Strategies from the Injury Community Planning Group:

1. Educate families about suffocation hazards, recalled products, and instructions for how to separate the child from the choking or suffocation hazard. Educational intervention can include instruction on:

- how to perform the Heimlich maneuver, and/or how to administer cardiopulmonary resuscitation (CPR) to a child who has stopped breathing.
- how to thoroughly childproof the home.
- foods that are not safe for children under 4 years of age (e.g., nuts and seeds, hotdogs, whole grapes, etc.). Always supervise young children while they are eating.
- how to select age-appropriate toys. Always supervise young children while they are playing.
- checking for recalled cribs, playpens, high chairs, changing tables, strollers, and other nursery products.

2. Educate families and caregivers about safe sleeping environments. Safe sleep environments include:

- putting infants to sleep in an appropriate crib environment.

- reducing risks of co-sleeping with an infant on a couch, or after using alcohol or other drugs.

3. For suffocation deaths that are intentional see the Chapter on Suicide.

4. Strategies for seniors include:

- ensuring good denture fit,
- medication adjustment to reduce sedation,
- dietary modifications to eliminate high risk foods and ensure adequate preparation, and
- adults and caregivers of the elderly should learn CPR and the Heimlich maneuver.

Resources:

Washington State

1. Washington State Childhood Injury Report Website:
http://www.doh.wa.gov/hsqa/emstrauma/injury/pubs/wscir/WSCIR_Suffocation.pdf.
2. Harborview Injury Prevention and Research Center. Best Practices: Choking, Aspiration and Suffocation Website:
<http://depts.washington.edu/hiprc/practices/topic/suffocation/index.html>.

National

3. National SAFE KIDS Campaign Website:
http://www.safekids.org/tips/tips_airway.html.
4. State Medical Society of Wisconsin's Website:
http://www.medem.com/search/article_display.cfm?path=n:&mstr=/ZZZDYWB1JJC.html&soc=SMS%20of%20WI&srch_typ=NAV_SERCH.
5. The American Academy of Pediatrics Website:
<http://www.aap.org/healthtopics/Sleep.cfm>.
6. US Consumer Product Safety Commission. Recalls and Product Safety Alerts.
<http://www.cpsc.gov/cpscpub/prerel/prerel.html>.
7. Safe Infant Bedding Practices.
http://www.firstcandle.org/expectantparents/exp_safeinfant.html.
8. A review of best practices. Preventing suffocation and choking injuries in Manitoba, Canada. http://www.gov.mb.ca/healthyliving/docs/injuries_suffocation.pdf.

Endnotes

ⁱ Washington State Department of Health. Washington State Childhood Injury Report. Olympia, WA, 2004. <http://www.doh.wa.gov/hsqa/emstrauma/injury/pubs/wscir/default.htm>

ⁱⁱ Baker SP, O'Neill B, Ginsburg MJ, and Guohua, L. The Injury Fact Book. 2nd ed. New York: Oxford University Press, 1992.

ⁱⁱⁱ U.S. Centers for Disease Control, Morbidity and Mortality Weekly Report, June 11, 2004 / 53(22); 471. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5322a2.htm>.

Reducing Suffocation-related Injuries and Deaths in Washington State

Because we have these resources...

...we are able to implement these strategies/activities

...and create these resources...

...so that we achieve these outcomes for our citizens.

